



## **RAW SEQUENCE LISTING ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/829,549  
Source: OIPE  
Date Processed by STIC: 4-23-01

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**

**PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:**

### **Checker Version 3.0**

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).

Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

**Checker Version 3.0 can be down loaded from the USPTO website at the following address:**

**<http://www.uspto.gov/web/offices/pac/checker>**

OIPE

RAW SEQUENCE LISTING                      DATE: 04/23/2001  
 PATENT APPLICATION: US/09/829,549                      TIME: 13:28:50

Input Set : A:\Umo152-1.txt  
 Output Set: N:\CRF3\04232001\I829549.raw

3 <110> APPLICANT: The Curators of the University of Missouri  
 5 <120> TITLE OF INVENTION: PHAGE DISPLAY SELECTION OF ANTI FUNGAL PEPTIDES  
 7 <130> FILE REFERENCE: UMO 1521.1  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/829,549  
 C--> 9 <141> CURRENT FILING DATE: 2001-04-10  
 9 <150> PRIOR APPLICATION NUMBER: US 60/195,785  
 10 <151> PRIOR FILING DATE: 2000-04-10  
 12 <160> NUMBER OF SEQ ID NOS: 48  
 14 <170> SOFTWARE: PatentIn version 3.0  
 16 <210> SEQ ID NO: 1  
 17 <211> LENGTH: 33  
 18 <212> TYPE: PRT  
 19 <213> ORGANISM: Type 88 filamentous bacteriophage  
 21 <220> FEATURE:  
 22 <221> NAME/KEY: VARIANT  
 23 <222> LOCATION: (9)..(23)  
 24 <223> OTHER INFORMATION: x=any amino acid encoded by the codon NNK  
 27 <400> SEQUENCE: 1  
 W--> 29 Leu Val Pro Met Leu Ser Phe Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 30 1                      5                      10                      15  
 W--> 32 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Ala Glu Gly Asp Asp Pro Ala Lys  
 33                      20                      25                      30  
 35 Ala  
 38 <210> SEQ ID NO: 2  
 39 <211> LENGTH: 20  
 40 <212> TYPE: DNA  
 C--> 41 <213> ORGANISM: Artificial  
 43 <220> FEATURE:  
 44 <221> NAME/KEY: misc\_feature  
 45 <222> LOCATION: (1)..(20)  
 46 <223> OTHER INFORMATION: Primer  
 49 <400> SEQUENCE: 2  
 50 ggagccttta attgtatcgg  
 53 <210> SEQ ID NO: 3  
 54 <211> LENGTH: 19  
 55 <212> TYPE: DNA  
 C--> 56 <213> ORGANISM: Artificial  
 58 <220> FEATURE:  
 59 <221> NAME/KEY: misc\_feature  
 60 <222> LOCATION: (1)..(19)  
 61 <223> OTHER INFORMATION: Primer  
 64 <400> SEQUENCE: 3  
 65 agtagcagaa gcctgaaga  
 68 <210> SEQ ID NO: 4  
 69 <211> LENGTH: 9  
 70 <212> TYPE: PRT  
 C--> 71 <213> ORGANISM: Artificial

Does Not Comply  
 Corrected Diskette Needed  
 See pp 1-5

20  
 Incomplete response for <213>  
 as per section 1.823b of the  
 new sequence rules. See # 11 on  
 the Error Summary Sheet.  
 19

Note: This error is indicated  
 throughout the sequence listing.  
 Please review and correct.

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/829,549

DATE: 04/23/2001  
TIME: 13:28:50

Input Set : A:\Umo152-1.txt  
Output Set: N:\CRF3\04232001\I829549.raw

73 <220> FEATURE:  
74 <221> NAME/KEY: DOMAIN  
75 <222> LOCATION: (1)..(9)  
76 <223> OTHER INFORMATION: Random peptide insert  
79 <400> SEQUENCE: 4  
81 Ala Ala Pro Asp Leu Gln Asp Ala Met  
82 1 5  
84 <210> SEQ ID NO: 5  
85 <211> LENGTH: 9  
86 <212> TYPE: PRT  
C--> 87 <213> ORGANISM: Artificial  
89 <220> FEATURE:  
90 <221> NAME/KEY: DOMAIN  
91 <222> LOCATION: (1)..(9)  
92 <223> OTHER INFORMATION: Random peptide insert  
95 <400> SEQUENCE: 5  
97 Ala Asp Arg Leu Asn Ser Asp Ala Gly  
98 1 5  
100 <210> SEQ ID NO: 6  
101 <211> LENGTH: 9  
102 <212> TYPE: PRT  
C--> 103 <213> ORGANISM: Artificial  
105 <220> FEATURE:  
106 <221> NAME/KEY: DOMAIN  
107 <222> LOCATION: (1)..(9)  
108 <223> OTHER INFORMATION: Random peptide insert  
111 <400> SEQUENCE: 6  
113 Ala Asp Arg Pro Ser Thr Thr Ser Leu  
114 1 5  
116 <210> SEQ ID NO: 7  
117 <211> LENGTH: 9  
118 <212> TYPE: PRT  
C--> 119 <213> ORGANISM: Artificial  
121 <220> FEATURE:  
122 <221> NAME/KEY: DOMAIN  
123 <222> LOCATION: (1)..(9)  
124 <223> OTHER INFORMATION: Random peptide insert  
127 <400> SEQUENCE: 7  
129 Ala Asp Pro Pro Arg Thr Val Ser Thr  
130 1 5  
132 <210> SEQ ID NO: 8  
133 <211> LENGTH: 9  
134 <212> TYPE: PRT  
C--> 135 <213> ORGANISM: Artificial  
137 <220> FEATURE:  
138 <221> NAME/KEY: DOMAIN  
139 <222> LOCATION: (1)..(9)  
140 <223> OTHER INFORMATION: Random peptide insert  
143 <400> SEQUENCE: 8

Refer to  
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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/829,549

DATE: 04/23/2001  
TIME: 13:28:50

Input Set : A:\Umol52-1.txt  
Output Set: N:\CRF3\04232001\I829549.raw

145 Ala Asp Arg Pro Ser Met Ser Pro Thr  
146 1 5  
148 <210> SEQ ID NO: 9  
149 <211> LENGTH: 9  
150 <212> TYPE: PRT  
C--> 151 <213> ORGANISM: Artificial  
153 <220> FEATURE:  
154 <221> NAME/KEY: DOMAIN  
155 <222> LOCATION: (1)..(9)  
156 <223> OTHER INFORMATION: Random peptide insert  
159 <400> SEQUENCE: 9  
161 Ala Asp Arg Thr Ser Asn Ala Ser Thr  
162 1 5  
164 <210> SEQ ID NO: 10  
165 <211> LENGTH: 9  
166 <212> TYPE: PRT  
C--> 167 <213> ORGANISM: Artificial  
169 <220> FEATURE:  
170 <221> NAME/KEY: DOMAIN  
171 <222> LOCATION: (1)..(9)  
172 <223> OTHER INFORMATION: Random peptide insert  
175 <400> SEQUENCE: 10  
177 Ala Asp Lys Ser Tyr Ile Pro Ser Ser  
178 1 5  
180 <210> SEQ ID NO: 11  
181 <211> LENGTH: 9  
182 <212> TYPE: PRT  
C--> 183 <213> ORGANISM: Artificial  
185 <220> FEATURE:  
186 <221> NAME/KEY: DOMAIN  
187 <222> LOCATION: (1)..(9)  
188 <223> OTHER INFORMATION: Random peptide insert  
191 <400> SEQUENCE: 11  
193 Ala Val Arg Asn Pro Ser His His Ser  
194 1 5  
196 <210> SEQ ID NO: 12  
197 <211> LENGTH: 9  
198 <212> TYPE: PRT  
C--> 199 <213> ORGANISM: Artificial  
201 <220> FEATURE:  
202 <221> NAME/KEY: DOMAIN  
203 <222> LOCATION: (1)..(9)  
204 <223> OTHER INFORMATION: Random peptide insert  
207 <400> SEQUENCE: 12  
209 Ala Asp Pro Thr Pro Arg Gly His Ser  
210 1 5  
212 <210> SEQ ID NO: 13  
213 <211> LENGTH: 9  
214 <212> TYPE: PRT

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/829,549

DATE: 04/23/2001  
TIME: 13:28:50

Input Set : A:\Umo152-1.txt  
Output Set: N:\CRF3\04232001\I829549.raw

C--> 215 <213> ORGANISM: Artificial  
217 <220> FEATURE:  
218 <221> NAME/KEY: DOMAIN  
219 <222> LOCATION: (1)..(9)  
220 <223> OTHER INFORMATION: Random peptide insert  
223 <400> SEQUENCE: 13  
225 Ala Asp Pro Thr Arg Gln Pro His Ser  
226 1 5  
228 <210> SEQ ID NO: 14  
229 <211> LENGTH: 9  
230 <212> TYPE: PRT  
C--> 231 <213> ORGANISM: Artificial  
233 <220> FEATURE:  
234 <221> NAME/KEY: DOMAIN  
235 <222> LOCATION: (1)..(9)  
236 <223> OTHER INFORMATION: Random peptide insert  
239 <400> SEQUENCE: 14  
241 Ala Glu His Gln Asn Ser Ala Gly Pro  
242 1 5  
244 <210> SEQ ID NO: 15  
245 <211> LENGTH: 10  
246 <212> TYPE: PRT  
C--> 247 <213> ORGANISM: Artificial  
249 <220> FEATURE:  
250 <221> NAME/KEY: DOMAIN  
251 <222> LOCATION: (1)..(10)  
252 <223> OTHER INFORMATION: Random peptide insert  
255 <400> SEQUENCE: 15  
257 Ala Asp Ala Arg Ser Ala Gly Ala Ile Ser  
258 1 5 10  
260 <210> SEQ ID NO: 16  
261 <211> LENGTH: 9  
262 <212> TYPE: PRT  
C--> 263 <213> ORGANISM: Artificial  
265 <220> FEATURE:  
266 <221> NAME/KEY: DOMAIN  
267 <222> LOCATION: (1)..(9)  
268 <223> OTHER INFORMATION: Random peptide insert  
271 <400> SEQUENCE: 16  
273 Ala Asp Ser Lys Asn Ala Gly Pro Met  
274 1 5  
276 <210> SEQ ID NO: 17  
277 <211> LENGTH: 9  
278 <212> TYPE: PRT  
C--> 279 <213> ORGANISM: Artificial  
281 <220> FEATURE:  
282 <221> NAME/KEY: DOMAIN  
283 <222> LOCATION: (1)..(9)  
284 <223> OTHER INFORMATION: Random peptide insert

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/829,549

DATE: 04/23/2001  
TIME: 13:28:50

Input Set : A:\Umo152-1.txt  
Output Set: N:\CRF3\04232001\I829549.raw

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287 <400> SEQUENCE: 17
289 Ala Glu Thr Lys Phe Ser Gly Ser Ala
290 1 5
292 <210> SEQ ID NO: 18
293 <211> LENGTH: 9
294 <212> TYPE: PRT
C--> 295 <213> ORGANISM: Artificial
297 <220> FEATURE:
298 <221> NAME/KEY: DOMAIN
299 <222> LOCATION: (1)..(9)
300 <223> OTHER INFORMATION: Random peptide insert
303 <400> SEQUENCE: 18
305 Ala Asp Pro Lys Gly Ser Gly Val Thr
306 1 5
308 <210> SEQ ID NO: 19
309 <211> LENGTH: 9
310 <212> TYPE: PRT
C--> 311 <213> ORGANISM: Artificial
313 <220> FEATURE:
314 <221> NAME/KEY: DOMAIN
315 <222> LOCATION: (1)..(9)
316 <223> OTHER INFORMATION: Random peptide insert
319 <400> SEQUENCE: 19
321 Ala Gly Leu Thr Ser Pro Asn Asp Met
322 1 5
324 <210> SEQ ID NO: 20
325 <211> LENGTH: 9
326 <212> TYPE: PRT
C--> 327 <213> ORGANISM: Artificial
329 <220> FEATURE:
330 <221> NAME/KEY: DOMAIN
331 <222> LOCATION: (1)..(9)
332 <223> OTHER INFORMATION: Random peptide insert
335 <400> SEQUENCE: 20
337 Ala Asp Ile Thr Asp Pro Met Gly Ala
338 1 5
340 <210> SEQ ID NO: 21
341 <211> LENGTH: 9
342 <212> TYPE: PRT
C--> 343 <213> ORGANISM: Artificial
345 <220> FEATURE:
346 <221> NAME/KEY: DOMAIN
347 <222> LOCATION: (1)..(9)
348 <223> OTHER INFORMATION: Random peptide insert
351 <400> SEQUENCE: 21
353 Ala Val Gly Thr His Thr Pro Asp Ser
354 1 5
356 <210> SEQ ID NO: 22
357 <211> LENGTH: 9

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Refer to  
p. 1

F.Y.I.

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

DATE: 04/23/2001

PATENT APPLICATION: US/09/829,549

TIME: 13:28:51

Input Set : A:\Umol52-1.txt

Output Set: N:\CRF3\04232001\I829549.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No  
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:29 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:41 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2  
L:56 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3  
L:71 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4  
L:87 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5  
L:103 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6  
L:119 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7  
L:135 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8  
L:151 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9  
L:167 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10  
L:183 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11  
L:199 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12  
L:215 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13  
L:231 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14  
L:247 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15  
L:263 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16  
L:279 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17  
L:295 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18  
L:311 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19  
L:327 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:20  
L:343 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:21  
L:359 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:22  
L:375 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:23  
L:391 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:24  
L:407 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:25  
L:423 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:26  
L:439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26  
L:445 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:27  
L:461 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:28  
L:477 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28  
L:483 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:29  
L:499 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:30  
L:515 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:31  
L:531 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:32  
L:547 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32  
L:553 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:33  
L:569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33  
L:575 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:34  
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34  
L:597 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:35  
L:613 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:36  
L:629 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36  
L:635 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:37  
L:657 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37  
L:663 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:38

## VERIFICATION SUMMARY

DATE: 04/23/2001

PATENT APPLICATION: US/09/829,549

TIME: 13:28:51

Input Set : A:\Umo152-1.txt

Output Set: N:\CRF3\04232001\I829549.raw

L:679 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:39  
L:695 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:40  
L:711 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:41  
L:727 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41  
L:733 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:42  
L:749 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:43  
L:765 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:44  
L:781 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:45  
L:797 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:46  
L:812 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:47  
L:827 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:48